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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,839	02/15/2002	Tetsuo Maoka	382.1036	1537

7590 09/21/2005

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EXAMINER

FOLEY, SHANON A

ART UNIT PAPER NUMBER

1648

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/076,839

Applicant(s)

MAOKA ET AL.

Examiner

Shanon Foley

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/30/2002.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Election/Restrictions***

Applicant's election with traverse of Group I in the reply filed on August 15, 2005 is acknowledged. The traversal is on the ground(s) that claim 8 should be examined with claims 1 and 2 because it was originally grouped with Group I in a restriction requirement mailed on May 23, 2005.

A review of the originally presented claims and the restriction requirements mailed May 23, 2005 and July 19, 2005 have been reviewed. It is not clear why originally presented claim 8 was grouped with Group I in the requirement of May 23, 2005 since the DNA of claim 8 merely encodes a protein selected from original claim 7. The inventive subject matter of claim 8 is patentably distinct from the inventive subject matter of Group 1. In other words, a DNA encoding NIa-Pro (claim 8) can independently support a separate patent from Group I because it encodes a protein while the nucleic acids of Group I encode a virus. The nucleic acids of Group I and the nucleic acid of Group II (claim 8) are structurally and functionally divergent since the nucleic acids of each Group encode different products. Each nucleic acid of Group I and Group II requires a separate and non-overlapping search in the prior art, including all patent and nonpatent literature databases. It is also noted that the nucleic acids of Groups I and II are separately classified. For all of these reasons, a search for Groups I and II would pose an undue search burden and a rejoinder is not possible. In addition, since claim 8 has been cancelled with the response, it is no longer pending in the application. Applicant's request for rejoinder is moot.

The requirement is still deemed proper and is therefore made FINAL.

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***Specification***

The disclosure is objected to because of the following informalities: A brief description of the drawings does not reference all of the individual figures 1a, 1b, 2a, ect.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 and 2 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1 and 2, as written, do not sufficiently distinguish over nucleic acids as they exist naturally because the claims do not particularly point out any non-naturally occurring differences between the claimed products and the naturally occurring products. In the absence of the hand of man, the naturally occurring products are considered non-statutory subject matter. *See Diamond v. Chakrabarty*, 447 U.S. 303, 206 USPQ 193 (1980). The claims should be amended to indicate the hand of the inventor as taught by page 4, last paragraph and the first two paragraphs on page 15 of the specification. See MPEP 2105.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by the Japanese Journal of Tropical Agriculture, Vol. 45, Extra Issue 1, March 30/31, 2001, pages 93-94 (provided from IDS submitted 7/30/2002) **or, alternatively** the Japanese International Research Center for Agricultural Services (JIRCAS) Newsletter, No. 29, December 2001, page 5 (provided in the IDS submitted 7/30/2002).

In a letter of priority submitted February 15, 2002, applicant states that a copy of the priority document, Japanese Application No. 040523/2001, is accompanied by an English translation. However, the translation cannot be located. Subsequently, the priority to the document cannot be determined. Therefore, the references listed on the IDS are available as intervening prior art until the claim to priority is perfected. It is noted in the last paragraph on page 3 of the application that the instant specification includes "all or part" of Japanese Application 2001-40523. However, from this statement, it cannot be determined which "part" is equivalent to the instant specification.

The claims are drawn to an RNA and a corresponding DNA sequence as shown in SEQ ID NO: 1 or a complementary sequence thereto.

Either reference, in the alternative, anticipate the complete nucleotide sequence of papaya leaf-distortion mosaic virus, see the either reference. Although neither reference teaches the genomic sequence of the virus, it is determined that SEQ ID NO: 1 is an inherent feature of the virus genome.

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Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by sequence alignment of SEQ ID NO: 1 with Genseq database accession no: AB088221 of Maoka et al. *in* (Archives of Virology. 1996; 141 (1): 197-204).

See the summary of the claims above.

Maoka et al. anticipate the nucleotide sequence of the 3' terminal end of the papaya leaf-distortion mosaic potyvirus (PLDMV), which includes the capsid protein gene, see Figure 1. Maoka et al. also teach isolating viral RNA from virus particles and making cDNA from the RNA, see the first full paragraph on page 199. Although Maoka et al. do not disclose the entire sequence of the genomic viral RNA isolated, it is determined that the instantly claimed SEQ ID NO: 1 sequence is an inherent feature of the isolated RNA of Maoka et al. since the 3' terminal and capsid gene sequences have perfect alignment with the instant SEQ ID NO: 1, see the sequence alignment provided. Applicant is reminded that "[A] prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent in it." See *In re Oelrich*, 666 F.2d at 581. Additionally, the courts have determined that "[I]nherency is not necessarily coterminus with the knowledge of those of ordinary skill in the art." See *Mehl/Biophile Int'l Corp. v. Milgram*, 192 F.3d 1362, 1365 (Fed. Cir. 1999). That is, it need not have been appreciated or recognized that the prior art reference inherently discloses the same invention for the reference to be anticipatory. See *Mehl/Biophile Int'l Corp. v. Milgram* 192 F.3d 1362, 1365 (Fed. Cir. 1999); *Atlas Power Co. v. Ireco Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999).

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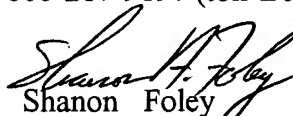
***Conclusion***

The following is prior art made of record, but not relied upon, is considered pertinent to applicant's disclosure: Maoka et al. (US 5,859,224) discloses and claims a genomic sequence of a papaya leaf-distortion mosaic virus coat protein gene, see column 2, lines 63-64 and claims 1 and 2. However, since this sequence did not appear in the sequence alignments for the instant SEQ ID NO: 1, it cannot be determined how the sequence of Maoka et al. is related to the instant SEQ ID NO: 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanon Foley whose telephone number is (571) 272-0898. The examiner can normally be reached on M-F 6:00 AM - 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on (571) 272-0902. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Shanon Foley  
Primary Examiner  
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